



Round Robin

1. Pass your paper to the person seated at your right and solve the first problem in the Round 1 box. You may work with your group to solve the problem.
2. Upon completion, pass the papers to the right again and solve the second problem in the Round 1 box. Again, you may work together to solve the problem.
3. Upon completion, pass the papers to the right again. You should have your paper at this point. Everyone should work the third problem from the Round 1 box on his own paper.
4. Continue this process for Rounds 2 – 4.
5. At the end of Round 4, work together to solve the problem posed at the bottom of the page.

Round 1

Find 10% of 25. _____

Find 20% of 25. _____

Find 30% of 25. _____

Round 3

Find 10% of 150. _____

Find 1% of 150. _____

Find 12% of 150. _____

Round 2

Find 10% of 80. _____

Find 1% of 80. _____

Find 4% of 80. _____

Round 4

Find 10% of 60. _____

Find 1% of 60. _____

Find $\frac{1}{2}\%$ of 60. _____

Use the information from Round 4 to help you solve the following problem.

Jordan bought a lamp that was priced at \$60. If she had to pay an $8\frac{1}{2}\%$ sales tax rate, how much tax did she pay?



Unit 2 Lesson 1

Why Did The Girl Eat Her Homework?

To find the answer to the riddle, solve each problem and find your answer in the answer column. Write the word next to your answer in the answer box at the bottom of the page that contains your problem number.

- 1 A necklace that was originally priced at \$90 is marked up in price by 15%. What is the new price of the necklace?
- 2 Mark earns 22% commission on his sales. If his sales were \$300, how much commission did he earn?
- 3 For a \$50 meal, Jason left a \$10 tip. What percent of the total cost of the meal was the tip?
- 4 Amy saved \$5 off the regular price of a \$20 book. What percent of the regular price did she save?
- 5 For a store-closing event, customers only pay 85% of the marked price. If an item is priced at \$40, how much will the customer actually pay?
- 6 David bought a color television that was originally priced at \$520. If he receives an 18% discount, how much will he save?
- 7 A $7\frac{1}{2}\%$ tax rate is assessed on a \$30 fishing license. How much is the tax?
- 8 Rebecca left a 16% tip for a \$25 meal. How much did she pay in all for the meal and tip?
- 9 Fae earns a 12% commission on her sales at the shoe store. If she sells \$320 in shoes, how much commission will she earn?
- 10 An 8% sales tax rate is assessed on a \$40 item. How much tax was paid?

Answer Column	
\$34	A
20%	OF
\$32.25	STUDENT
\$38.40	TEACHER
\$93.60	CAKE
10%	HUNGRY
\$66	TOLD
\$358.40	ATE
\$103.50	WAS
\$426.40	BECAUSE
\$2.25	THE
5%	LUNCH
\$29	HER
\$3.20	PIECE
\$366	TIME
\$6	MONEY
\$4	TASTE
25%	IT
\$76.50	SWEET

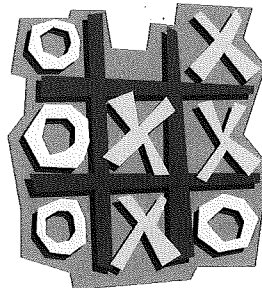
7	9	2	8	4	1	5	10	3	6



Tic Tac Toe

Solve any three problems in a row (horizontally, vertically, or diagonally) to make a tic tac toe.

85% of the student class participated in the fundraiser. If there are 320 students in the class, how many participated in the fundraiser?	Suzy noticed that 15% of the customers in her checkout lane at the grocery store paid with a debit card. If she had 240 customers, how many paid with a debit card?	Due to good performance, Brad received a 3.5% raise. If his hourly pay was \$8.00 an hour, what will his hourly pay be after the raise is applied?
Sixteen percent of the eighth grade students auditioned for choir. If there are 400 students in the eighth grade, how many auditioned for choir?	How much will tax be on a \$20 item if a tax rate of 8.25% is applied?	Stephanie received a 14% discount on her purchase of \$12. How much was the amount of discount?
A savings account pays 4.5% annual interest on the principal. If Nikki has \$500 in her savings account, how much will she earn in interest in 1 year?	The price of a box of Camp Scout cookies is \$3.00. If the price is increased by 15%, what will be the new price of a box of cookies?	7% of the customers on Cheap-O Airlines reported lost luggage. If there were 2,200 customers, how many reported lost luggage?





Unit 2 Lesson 1

Independent Practice

To find the percent of a number, you can use benchmark percents or change the percent to a fraction or decimal and multiply it by the given number.

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Example 1: Find 15% of 80.

Using benchmark percents:

$$\begin{aligned} 10\% \text{ of } 80 &= 8 \\ 5\% \text{ of } 80 &= 4 \\ 15\% \text{ of } 80 &= 8+4 = 12 \end{aligned}$$

Changing 15% to a fraction:

$$\begin{aligned} \frac{15}{100} &= \frac{3}{20} \quad (\text{simplify}) \\ \frac{3}{20} \times 80 &= \frac{3}{20} \times \frac{80}{1} = \frac{240}{20} = 12 \end{aligned}$$

Changing 15% to a decimal:

$$\begin{aligned} 0.15 \times 80 &= 12 \\ &\begin{array}{r} 0.15 \\ \times 80 \\ \hline 12.0 \end{array} \end{aligned}$$

Example 2: Find $12\frac{1}{2}\%$ of 50.

Using benchmark percents:

$$\begin{aligned} 10\% \text{ of } 50 &= 5 \\ 1\% \text{ of } 50 &= 0.5 \\ \frac{1}{2}\% \text{ of } 50 &= 0.25 \\ 12\frac{1}{2}\% \text{ of } 50 &= \\ 5 + 0.5 + 0.5 + 0.25 &= 6.25 \end{aligned}$$

Changing $12\frac{1}{2}\%$ to a fraction:

$$\begin{aligned} \frac{12.5}{100} &= \frac{1}{8} \quad (\text{simplify}) \\ \frac{1}{8} \times 50 &= \frac{1}{8} \times \frac{50}{1} = \frac{50}{8} \\ &= 6\frac{2}{8} = 6\frac{1}{4} \end{aligned}$$

Changing $12\frac{1}{2}\%$ to a decimal:

$$\begin{aligned} 0.125 \times 50 &= 6.25 \\ &\begin{array}{r} 0.125 \\ \times 50 \\ \hline 6.250 \end{array} \end{aligned}$$

1 Find 35% of 250.

2 Find $66\frac{2}{3}\%$ of 99.

3 In a new subdivision, 2.5% of the homes have a three-car garage. If there are 400 homes in the subdivision, how many have a three-car garage?



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- 4 The price of a CD is \$16. If a customer has to pay an $8\frac{1}{4}\%$ tax rate, how much tax does he have to pay on the CD?
- 5 Find $37\frac{1}{2}\%$ of 64.
- 6 Find $62\frac{1}{2}\%$ of 72.
- 7 An \$800 television is marked up in price by 7.5%. What is the new price of the television?
- 8 At Johnston Middle School, 42% of the students ride the bus. If there are 1200 students at Johnston Middle School, how many ride the bus?
- 9 Josue has \$1,400 in his savings account. He earns 6.5% annual interest on the principal. How much interest will he earn in 1 year?
- 10 $12\frac{1}{2}\%$ of the customers having their oil changed on Saturday had expired inspection stickers on their cars. If 320 customers had their oil changed on Saturday, how many had an expired inspection sticker?



Unit 2 Lesson 1

Bargain Shopper

Emilio is planning on purchasing a new pair of blue jeans to wear to the back-to-school dance. The blue jeans he wants to buy are on sale at 2 different stores.

Denim Mart

blue jeans
Regular price \$48

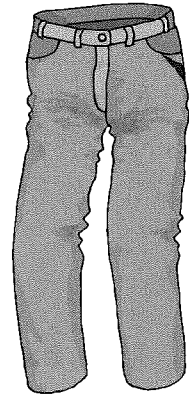
Now on sale for $37\frac{1}{2}\%$ off!

Jenning's Department Store

blue jeans
Regular price \$38

Now on sale for 20% off!

At which store will the blue jeans cost the least amount of money? Justify your answer.



FOR TEACHER USE ONLY:

a. YES NO Student arrives at a correct solution?

	4	3	2	1
b. Conceptual Knowledge				
c. Procedural Knowledge				
d. Communication				



- 1 A book that is regularly priced at \$20 is on sale for 25% off. Which statement below identifies a book that is on sale for the same price?
- A A \$30 book is on sale for $33\frac{1}{3}\%$ off.
- B A \$27 book is on sale for 30% off.
- C A \$25 book is on sale for 20% off.
- D A \$24 book is on sale for $37\frac{1}{2}\%$ off.
- 2 A cell phone company's base rate is \$40 per month. The company decides to reduce its base rate to \$38 per month. By what percent did the company reduce its monthly base rate?
- A 38%
- B 20%
- C 5%
- D 2%
- 3 On Saturday, a fast food restaurant served 40% more customers than on Friday. If 820 customers were served on Friday, how many were served on Saturday?
- A 328 customers
- B 860 customers
- C 1148 customers
- D 1312 customers
- 4 In June the total rainfall was 20% less than in May. If 5.6 inches of rain fell in May, how many inches of rain fell in June?
- A 1.12 inches
- B 4.48 inches
- C 5.4 inches
- D 6.72 inches